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**“जानने का अधिकार, जीने का अधिकार”**

Mazdoor Kisan Shakti Sangathan

**“The Right to Information, The Right to Live”**

**“पुराने को छोड़ नये के तरफ”**

Jawaharlal Nehru

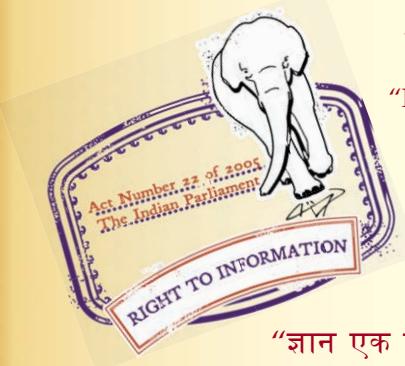
**“Step Out From the Old to the New”**

IS 6688 (2005): Taper Pins [PGD 31: Bolts, Nuts and Fasteners Accessories]

**“ज्ञान से एक नये भारत का निर्माण”**

Satyanaaranay Gangaram Pitroda

**Invent a New India Using Knowledge**



**“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”**

Bhartṛhari—Nītiśatakam

**“Knowledge is such a treasure which cannot be stolen”**





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भारतीय मानक  
अदृढ़ीकृत टेपर पिन  
( दूसरा पुनरीक्षण )

*Indian Standard*  
TAPER PINS, UNHARDEDENED  
( Second Revision )

ICS 21.060.50

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BUREAU OF INDIAN STANDARDS  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

## NATIONAL FOREWORD

This Indian Standard (Second Revision) which is identical with ISO 2339 : 1986 'Taper pins, unhardened' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendations of the Bolts, Nuts and Fasteners Accessories Sectional Committee and approval of the Medical Instruments, General and Production Engineering Division Council.

The original version of this standard was issued in 1972 revised in 1981. This second revision is being published harmonizing with ISO 2339 : 1986 by adoption to make pace with the latest developments taken place at international level.

The text of ISO Standard has been approved as an suitable for publication as an Indian Standard without deviations. Certain terminology and conventions are, however, not identical to those used in the Indian Standards. Attention is drawn especially to the following:

- a) Wherever the words 'International Standard' appear, referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 2081 : 1986 Metallic coatings — Electroplating coatings of zinc on iron or steel	IS 1573 : 1986 Specification for electroplated coatings of zinc on iron or steel ( <i>second revision</i> )	Identical
ISO 3269 : 1988 <sup>1)</sup> Fasteners — Acceptance inspection	IS 1367 (Part 17) : 2005 Technical supply conditions for threaded steel fasteners: Part 17 Inspection, sampling and acceptance procedure ( <i>fourth revision</i> )	Technically equivalent
ISO 4520 : 1981 Chromate conversion coatings on electroplated zinc and cadmium coatings	IS 9839 : 1981 Chromate conversion coatings on electroplated zinc and cadmium coatings	Identical

As decided by the Committee additional requirements of packaging, marking and BIS Certification Marking are given in National Annex A. These additional requirements are part of this standard.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

<sup>1)</sup> Since revised in 2000 and now identical with this version.

*Indian Standard*  
**TAPER PINS, UNHARDEDENED**  
*( Second Revision )*

## **1 Scope and field of application**

This International Standard specifies the characteristics of unhardened taper pins, with metric dimensions and nominal diameters,  $d$ , from 0,6 to 50 mm inclusive.

## **2 References**

ISO 2081, *Metallic coatings — Electroplated coatings of zinc on iron or steel.*

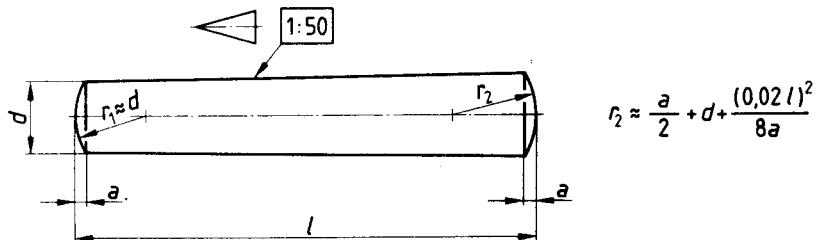
ISO 3269, *Fasteners — Acceptance inspection.*

ISO 4520, *Chromate conversion coatings on electroplated zinc and cadmium coatings.*

### 3 Dimensions

Type A (ground pins) : Surface finish  $R_a = 0,8 \mu\text{m}$

Type B (turned pins) : Surface finish  $R_a = 3,2 \mu\text{m}$



Dimensions in millimetres

$d$	$h10^1)$										0,6	0,8	1	1,2	1,5	2	2,5	3	4	5	6	8	10	12	16	20	25	30	40	50
$a$	$\approx$										0,08	0,1	0,12	0,16	0,2	0,25	0,3	0,4	0,5	0,63	0,8	1	1,2	1,6	2	2,5	3	4	5	6,3
nom.	$\rho^2)$										min.	max.																		
2	1,75	2,25																												
3	2,75	3,25																												
4	3,75	4,25																												
5	4,75	5,25																												
6	5,75	6,25																												
8	7,75	8,25																												
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80	79,25	80,75																												
85	84,25	85,75																												
90	89,25	90,75																												
95	94,25	95,75																												
100	99,25	100,75																												
120	119,25	120,75																												
140	139,25	140,75																												
160	159,25	160,75																												
180	179,25	180,75																												
200	199,25	200,75																												

1) Other tolerances, for example, a11, c11, f8, as agreed between customer and supplier.

2) For nominal lengths above 200 mm, steps of 20 mm.

#### 4 Specifications and reference International Standards

<b>Material</b>	St = Free-cutting steel, hardness 125 to 245 HV. Other materials as agreed between customer and supplier.
<b>Surface finish</b>	Plain, i.e. pins to be supplied in natural finish treated with a rust-preventative lubricant, unless otherwise specified by agreement between customer and supplier.
	Preferred coatings are black oxide, phosphate coating or zinc plating with chromate conversion coating (see ISO 2081 and ISO 4520). Other coatings as agreed between customer and supplier. All tolerances shall apply prior to the application of a plating or coating.
<b>Workmanship</b>	Parts shall be uniform in quality and free of irregularities or detrimental defects. No burrs shall appear on any part of the pin.
<b>Taper</b>	The taper shall be inspected by use of an adequate optical comparator.
<b>Acceptability</b>	The acceptance procedure is covered in ISO 3269.

#### 5 Designation

Example for the designation of an unhardened steel taper pin, type A, with nominal diameter  $d = 6$  mm and nominal length  $l = 30$  mm :

**Taper pin ISO 2339 - A - 6 × 30 - St**

## NATIONAL ANNEX A

(*National Foreword*)

### A-1 PACKAGING

Unless otherwise specified the packaging of taper pins shall be done in cartons or boxes in quantities of 10, 20, 50 or 100. Each carton shall have pins of one size only. The size and quantity shall be clearly indicated on the cartons or boxes.

### A-2 MARKING

The cartons containing the pins shall be marked with size and indication of the source of manufacture.

### A-3 BIS CERTIFICATION MARKING

Details available with the Bureau of Indian Standards.

## Bureau of Indian Standards

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### Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards : Monthly Additions'.

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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

### BUREAU OF INDIAN STANDARDS

#### Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110 002  
Telephones : 2323 01 31, 2323 33 75, 2323 94 02

Telegrams : Manaksansta  
(Common to all offices)

#### Regional Offices :

		Telephone
Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110 002	{ 2323 76 17 2323 38 41
Eastern	: 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700 054	{ 2337 84 99, 2337 85 61 2337 86 26, 2337 91 20
Northern	: SCO 335-336, Sector 34-A, CHANDIGARH 160 022	{ 260 38 43 260 92 85
Southern	: C.I.T. Campus, IV Cross Road, CHENNAI 600 113	{ 2254 12 16, 2254 14 42 2254 25 19, 2254 23 15
Western	: Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400 093	{ 2832 92 95, 2832 78 58 2832 78 91, 2832 78 92
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